

## **3.16 SOCIOECONOMICS**

### **3.16.1 Affected Environment**

This section discusses population, housing, and economics based in part on Section 8.1 of the ASC. Please refer to that section for further details about these topics.

#### **3.16.1.1 Population and Demographics**

The proposal would occupy portions of six counties: from west to east, parts of southern Snohomish County, eastern King County, southern Kittitas and Grant Counties, a small area of the southwestern corner of Adams County, and the west-central area of Franklin County, terminating near the Snake River just east of Pasco.

The aggregate population of these counties was 2.29 million in 1995 (Washington State Office of Financial Management 1995). In addition to the rural areas that the pipeline corridor would pass through, this population figure includes metropolitan Seattle and other large urban cities in western King and Snohomish Counties that would not be directly affected by the proposal. The number of residents in unincorporated areas of these six counties was an estimated 837,827 persons as of April 1, 1995.

Table 3.16-1 provides data on the numbers of residents of the corridor counties in 1990 and 1995, distributed among unincorporated and incorporated areas. Except for King County, the corridor counties=unincorporated area populations grew between 1990 and 1995, continuing trends from the 1970s and 1980s, as did the incorporated communities along the ROW. Trends of population growth during the first half of the 1990s range from less than 1 percent per year to over 4 percent for unincorporated areas (excluding King County, which showed a decline in unincorporated area residents due to incorporation of several communities) as well as for the incorporated communities along the ROW.

King, Kittitas, and Snohomish Counties have higher proportions of their population in the working-age years of 18 to 64 than the more rural eastern counties of Adams, Franklin, and Grant. The percentage of citizens in the working-age years for the urbanized counties in 1990 ranged from 63 percent to 66 percent, while the rural eastern counties had a range of 55 percent to 56 percent, compared with 62 percent for Washington state (U.S. Bureau of the Census 1992). The more rural eastern counties have higher dependency ratios (the ratio of persons under 18 and those 65 and older to the total population) than the other three counties and the state as a whole. This smaller proportion of working-age population is fairly typical of rural counties.

Data on the gender and ethnic group characteristics of the proposal area counties along with corresponding statewide values are shown in Table 3.16-2. In the overall proposal area, females outnumber males (although not in the three eastern counties) and Caucasians predominate among the ethnic groups. See *Environmental Justice* below for a more in-depth discussion of ethnicity.

**Table 3.16-1. Population Distribution in the Pipeline Corridor Counties**

County	1990 <sup>a</sup>	1995 <sup>b</sup>	Average Annual Growth Rate	
			Percent per Year	Relative Rate
<b>Snohomish - Total</b>	465,628	525,600	2.45	high growth
Unincorporated	259,796	269,544	0.74	low growth
Incorporated	205,832	256,056	4.46	high growth
<b>King - Total</b>	1,507,305	1,613,600	1.37	moderate growth
Unincorporated	513,257	497,403	-0.63	negative growth
Incorporated	994,048	1,116,197	2.35	high growth
<b>Kittitas - Total</b>	26,725	30,100	2.41	high growth
Unincorporated	10,418	12,841	4.27	high growth
Incorporated	16,307	17,256	1.14	moderate growth
<b>Grant - Total</b>	54,798	64,500	3.31	high growth
Unincorporated	26,406	32,405	4.18	high growth
Incorporated	28,392	32,095	2.48	high growth
<b>Adams - Total</b>	13,603	15,200	2.24	high growth
Unincorporated	6,466	7,364	2.64	high growth
Incorporated	7,137	7,836	1.89	moderate growth
<b>Franklin - Total</b>	37,473	44,000	3.26	high growth
Unincorporated	14,712	18,270	4.43	high growth
Incorporated	22,761	25,730	2.48	high growth
<b>Washington State</b>	4,866,692	5,429,879	2.31	high growth

Source: Washington State Office of Financial Management 1995, U.S. Bureau of the Census 1992

<sup>a</sup> Census Bureau data as of 4/01/90

<sup>b</sup> Washington State Office of Financial Management estimate as of 4/01/95

**Table 3.16-2. Gender and Ethnic Group Distribution of the Pipeline Corridor County Populations**

County	Population (1993)	Male	Female	Caucasian		African American		Native American		Asian and Pacific Islanders		Other	
				Total	Percent	Total	Percent	Total	Percent	Total	Percent	Total	Percent
Snohomish	507,900	253,345	254,555	469,286	92.4%	5,818	1.1%	7,140	1.4%	21,596	4.3%	4,060	0.8%
King	1,587,700	782,313	805,387	1,320,897	83.2%	84,368	5.3%	18,723	1.2%	145,898	9.2%	17,814	1.1%
Kittitas	29,200	14,498	14,702	27,510	94.2%	156	0.5%	186	0.6%	844	2.9%	504	1.7%
Grant	60,300	30,535	29,765	49,425	82.0%	671	1.1%	673	1.1%	728	1.2%	8,803	14.6%
Adams	14,300	7,218	7,082	9,073	63.4%	33	0.2%	65	0.5%	102	0.7%	5,027	35.2%
Franklin	41,100	21,083	20,017	26,668	64.9%	1,306	3.2%	302	0.7%	1,156	2.8%	11,668	28.4%
Subtotal	2,240,500	1,108,992	1,131,508	1,902,859	-	92,352	-	27,089	-	170,324	-	47,876	-
Washington State	5,240,900	2,600,485	2,640,415	4,569,295	87.2%	170,399	3.3%	89,970	1.7%	268,550	5.1%	142,686	2.7%

Source: Washington State Office of Financial Management 1993, 1994.

### 3.16.1.2 Housing

According to the 1990 census, household sizes were generally higher in the three rural eastern counties, ranging from 2.74 to 3.03 persons per household, in comparison to the western counties, ranging from 2.33 to 2.68.

The westernmost counties of King and Snohomish had higher median values of owner-occupied dwellings (\$140,100 and \$127,200 respectively) than the other four counties (ranging from \$45,900 to \$60,500) or statewide (\$93,400). Vacancy rates in Kittitas County and the three eastern counties also tended to be higher (a range of 10.7 percent to 20.8 percent) than in the westernmost counties (4.9 percent for King County and 6.6 percent for Snohomish County) and statewide (7.9 percent). However, it is likely that in the eastern, rural parts of King and Snohomish Counties, vacancy rates and median values were probably more comparable to the other counties' figures. Housing market conditions in large cities tend to be tighter than in rural areas.

### 3.16.1.3 Economy, Employment, and Income

The pipeline corridor counties have differing economic bases. The manufacturing, financial, business and personal services, and wholesale/retail trade sectors represent approximately 75 percent of the jobs and earnings by the populations of King and Snohomish Counties. The natural resource utilization (e.g., farming, forestry, fishing, and mining) and government sectors in Adams, Franklin, Grant, and Kittitas Counties represent the largest share of each respective population's jobs, 40 percent to 45 percent, and earnings, 45 percent to 60 percent.

Table 3.16-3 presents data on the composition of employment and earnings in the six counties in 1993. King and Snohomish Counties' large urban/industrial bases bias their data aggregates toward the manufacturing, financial, and business services industries, but in the rural, eastern parts of the counties, agriculture is a relatively more important economic activity.

Table 3.16-4 presents data on the socioeconomic conditions of the pipeline corridor counties. As the table shows, King and Snohomish Counties differ from the other four counties with respect to levels of income and employment. This difference is largely due to the more robust urban/industrial conditions generated by the Seattle metropolitan area and other urbanized areas of the region. See *Environmental Justice* below for a more in-depth discussion of this difference.

School districts collect the majority of local revenue, with intergovernmental transfers (primarily from the state) accounting for the bulk of the income. Local property taxes typically account for 10 to 20 percent of the total revenues for both types of jurisdiction, with the higher share occurring in Snohomish and King Counties with their larger residential and business property tax bases. Intergovernmental transfers account for a smaller share of government revenues in Snohomish and King Counties than in the more rural eastern counties.

**Table 3.16-3. Employment and Income for the Pipeline Corridor Counties as of 1993**

County		Agriculture, Forestry, and Fishing	Mining and Construction	Manufacturing	Transportation, Communication, and Utilities	Wholesale and Retail Trade	Financial and Other Services	Government	Total
Snohomish	Jobs	2.51%	7.33%	23.77%	3.14%	21.13%	29.96%	12.15%	237,303
	Earnings	\$145	\$539	\$2,564	\$260	\$927	\$1,389	\$841	\$6,664
	Per capita earnings	\$24.3	\$31.0	\$45.4	\$34.9	\$18.5	\$10.5	\$20.2	\$28.1
King	Jobs	1.26%	5.28%	13.37%	5.67%	22.46%	39.62%	12.35%	1,177,040
	Earnings	\$526	\$2,280	\$7,028	\$2,840	\$6,532	\$14,731	\$4,619	\$38,556
	Per capita earnings	\$35.5	\$36.7	\$44.7	\$42.5	\$24.7	\$31.6	\$31.8	\$32.8
Kittitas	Jobs	9.90%	3.38%	6.45%	4.01%	24.79%	24.31%	27.16%	14,280
	Earnings	\$27	\$11	\$22	\$18	\$54	\$45	\$99	\$276
	Per capita earnings	\$10.1	\$22.8	\$23.9	\$31.5	\$15.3	\$13.0	\$23.5	\$19.3
Grant	Jobs	20.29%	6.61%	10.96%	3.79%	21.07%	18.62%	18.65%	30,126
	Earnings	\$191	\$46	\$95	\$34	\$104	\$81	\$157	\$708
	Per capita earnings	\$31.2	\$23.1	\$28.8	\$29.8	\$16.4	\$14.4	\$27.9	\$23.5
Adams	Jobs	25.80%	2.12%	12.72%	5.24%	20.25%	17.61%	16.26%	8,381
	Earnings	\$90	\$4	\$31	\$10	\$29	\$21	\$31	\$215
	Per capita earnings	\$41.6	\$22.5	\$20.1	\$22.8	\$17.1	\$14.2	\$22.9	\$25.7
Franklin	Jobs	19.01%	4.67%	6.07%	5.81%	22.65%	24.32%	17.47%	22,246
	Earnings	\$143	\$27	\$36	\$50	\$103	\$98	\$104	\$561
	Per capita earnings	\$33.8	\$26.0	\$26.6	\$38.7	\$20.4	\$18.1	\$26.8	\$25.2
<p>Source: U.S. Bureau of Economic Analysis 1995.</p> <p>Notes: All earnings are in thousands of dollars. Earnings are by place of work and include the proprietors' earnings.</p>									

**Table 3.16-4. Proposal Area Socioeconomic Indicators**

Parameter	Snohomish	King	Kittitas	Grant	Adams	Franklin	WA Statewide
Per capita income (1989)	\$15,769	\$18,587	\$10,781	\$10,376	\$10,083	\$10,407	\$14,923
Population (4/1/89)	444,460	1,463,301	26,029	52,044	13,570	37,221	4,728,076
Number of families below poverty level (1989)	29,334	117,064	5,258	10,318	2,375	8,561	515,360
Percent families below poverty level (1989)	6.6%	8.0%	20.2%	19.6%	17.5%	23.0%	10.9%
Unemployment rate (1991)	5.6%	4.6%	10.5%	10.1%	13.4%	12.8%	6.3%
Number unemployed (1991)	13,180	40,350	1,330	2,875	1,020	2,225	157,370
<b>Public Assistance (average number of persons per month and percent population, fiscal year 1995):</b>							
AFDC - number	21,741	68,447	1,209	4,304	1,483	4,069	289,199
AFDC - percent	4.14	4.24	4.02	6.67	9.76	9.25	5.33
General assistance - number	1,765	6,297	71	186	41	118	20,796
General assistance - percent	0.34	0.39	0.24	0.29	0.27	0.27	0.38
Food stamps	4.0%	5.3%	6.9%	5.4%	8.5%	18.5%	7.5%
Food stamps - number	35,130	11,052	2,104	7,012	2,732	6,891	476,474
Food stamps - percent	6.68	6.88	6.99	10.87	17.97	15.66	8.78
Medical assistance - number	33,768	104,225	1,624	7,165	3,119	6,633	451,071
Medical assistance - percent	6.42	6.46	5.40	11.11	20.52	15.08	8.31

Source: U.S. Bureau of the Census 1992, Washington State Office of Financial Management 1995

Note: AFDC = Aid to Families with Dependent Children

### 3.16.1.4 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires each federal agency to make the achievement of environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low income populations. The Order further stipulates that the agencies conduct their programs and activities in a manner that does not have the effect of excluding persons from participation in, denying persons the benefits of, or subjecting persons to discrimination because of their race, color, or national origin.

As shown in Table 3.16-2, minority groups represent less than 20 percent of the ethnic makeup of the pipeline corridor counties (except for Adams and Franklin Counties where over 35 percent of the population considers themselves of minority ancestry) as well as the State of

Washington in general. Asian and Pacific Islanders constitute the largest single ethnic minority group in each of the counties, except for Franklin County where African-Americans represent the largest minority group. Adams, Grant, and Franklin Counties do have substantial populations (ranging between 15 percent and 35 percent) that consider themselves of an ethnic background other than standard classifications.

The only Native American land in proximity to the pipeline corridor lies in Grant County and belongs to the non-federally recognized tribe of the Wanapum. As of 1980, four Wanapum families remained on the land. (Ruby and Brown 1992.) In addition, five Indian reservations are located along the west coast of Washington, on the Pacific Ocean, that could be affected by a product spill under No Action. These reservations include, from north to south, the Makah, Ozette, Quillayute, Hoh, and the Quinault Indian Reservations.

Table 3.16-4 indicates that the two western counties (King and Snohomish) have higher levels of per capita income (over \$15,000 in 1989) and lower incidences of unemployment (approximately 5 percent in 1991), poverty, and public assistance than the eastern counties. The greater Seattle metropolitan area provides a vigorous urban/industrial condition that is exhibited in the standard of living in the region. The rural eastern counties had a 1989 per capita income range of \$10,000 to \$11,000 and exhibited 10 percent to 13.5 percent unemployment in 1991. Adams, Franklin, Grant, and Kittitas Counties also had approximately twice the number of families below the poverty level in 1989 than the statewide average or the western two counties.

### 3.16.2 Environmental Consequences

#### 3.16.2.1 Proposed Petroleum Product Pipeline

**Construction Impacts.** As described in Chapter 2, the construction workforce for the proposal would be split into three construction spreads. Spread 1 would construct the western portion of the pipeline, Spread 2 would construct the central mountainous portion, and Spread 3 would construct the eastern portion. The construction workforce peak for each spread would be as follows: 375 workers for Spread 1, 159 workers for Spread 2, and 375 workers for Spread 3. Approximately 70 percent of the construction workers (640 workers for the three spreads) would come from outside the state.

Due to the concentration of activities in the 12-month construction period, this phase would generate the bulk of the proposal's overall socioeconomic effects (as opposed to the operation phase). Of particular interest to the socioeconomic analysis are the number of workers that would be hired locally from communities along the ROW (versus transferred in from out of the region, thus requiring temporary housing and other services); the wages and salaries that would be paid (of which a portion would be spent locally, thus benefitting local merchants); and the procurement of construction materials and services (also benefitting local suppliers as well as generating sales taxes).

**Population and Demographics.** The people most directly affected would be those living in communities close to the pipeline corridor. Incorporated towns and cities along the

corridor had 54,444 inhabitants in 1995. Data were not available for the populations of small unincorporated towns along the pipeline corridor. By best professional estimates (OPL 1998), the actual number of people that would be positively or negatively impacted by construction activities may be approximately 100,000 (OPL 1998). Indirectly, however, the entire population of each of the corridor counties would experience some effects, in part from jobs and income generated by the proposal, and in part from sales and use taxes accruing to local jurisdictions for procurement of taxable goods and from property taxes on the proposal lands and facilities.

The maximum expected duration of construction at any one location along the pipeline corridor is no more than 10 days under favorable weather conditions. Because of the short construction period within any one area and because the construction work would progress fairly rapidly, the proposals direct construction impacts on population levels in any given community would be brief and negligible.

In addition, apart from the temporary and small increases in local populations from non-local construction workers, no permanent population changes are expected to occur as a result of the construction activities because non-local workers generally do not bring dependents along on jobs with moving work sites. Potential impacts to housing, employment, or the economics of local populations are addressed below.

**Housing.** Projected numbers of construction workers for each of the six counties in the peak 3 months and second and third highest months are summarized in Table 3.16-5. These figures establish the context for evaluating the adequacy of construction housing along the pipeline corridor.

**Table 3.16-5. Projected Numbers of Transient Workers for  
Counties where the Pipeline would be Located**

County	Peak Month	2 <sup>nd</sup> Highest Month	3 <sup>rd</sup> Highest Month
Snohomish	49	18	10
King	126	46	27
Kittitas	283	104	30
Grant	82	30	17
Adams	22	8	5
Franklin	103	38	22
Source: Dames & Moore estimates.			

One further consideration is the type of housing that is needed. Construction workers for linear proposals like pipelines, highways, and transmission lines almost universally use recreational vehicles (RVs) for housing on the jobs away from home. Out-of-pocket running costs, including rental of RV park pads or campground space, are much lower than staying in motels or hotels (RV parks typically charge \$10 to \$15 per vehicle per night versus \$40 to over \$60 for hotel or motel rooms outside of the metropolitan area), and relocation is much easier as construction progresses



along the ROW. In some instances workers may pool resources and rent a house, condominium, or apartment; however, mobile accommodations are preferred for relatively short-term jobs.

Accordingly, statistics on vacancy rates and cost for single- and multi-family housing are not of much use in assessing the transient housing capacity of the area. More relevant is the status of RV parks, campgrounds, and mobile home parks as an indicator of the area's ability to accommodate non-local construction workers. AAA TourBook listings are considered here as a guide although they do not include all lodging and other non-listed lodging is generally available.

For the proposal, non-local and out-of-state workers employed on the western segments of the proposal would find RV parks and campgrounds, as well as motels and other accommodations, within reasonable commuting time of the construction site. King and Snohomish Counties, according to a commercial listing of RV parks and campgrounds, identify over 1,100 RV pads and campground sites in the communities of Everett, Lynnwood, Bothell, Sultan, Issaquah, Fall City, North Bend, and adjacent portions of the Mt. Baker-Snoqualmie National Forest (Woodall Publications Corp. 1996). The 175 peak phase non-local workers projected for the Snohomish and King County segments of the proposal would represent 15.9 percent of the area's transient accommodations.

Accommodations for the construction workforce in Kittitas County are less abundant than in the Seattle metropolitan area. Woodall's 1996 Western Campground Directory lists 399 RV pads and campground sites with hookups in Ellensburg, Easton, and Cle Elum. Another 153 campground sites located in two campgrounds in the Wenatchee National Forest would not be available to the construction workforce because of USFS restrictions on such use. The American Automobile Association's 1996 Tourbook for Washington identifies four motels plus a small bed-and-breakfast establishment in Ellensburg for a total of 251 rooms, plus another four motels in Cle Elum with a total of 109 rooms, for a total of 360 rooms.

In total, Kittitas County has about 760 RV sites and motel rooms, versus a projected peak demand for temporary accommodations of approximately 280 non-local workers, or approximately 37 percent of the available transient housing. These sites may or may not be available, depending upon seasonal use. The actual number of RV sites or other transient accommodations required could be smaller, to the extent that workers double up, as is a common practice.

The eastern segments of the proposal would have a peak of approximately 100 non-local/construction workers in Grant and Adams Counties. They would have the choice of several RV parks and campgrounds along the pipeline corridor, as well as a number of motel rooms. The RV facilities that would be most convenient for workers in Grant and Adams Counties are located in the towns of Vantage and Moses Lake (Woodall Publications Corp. 1996). Vantage has a KOA RV park with 75 pads plus the Wanapum State Park with 50 campsites. Moses Lake has three RV parks with 430 pads plus the Potholes State Park with 120 campsites. Altogether, there are more than 675 pads and campsites in Grant and Adams Counties.

The American Automobile Association's 1996 TourBook for Washington lists one motel in Othello with 52 rooms and four motels in Moses Lake with 369 rooms, for a total of 421 rooms (although other motels exist in the area that are not in the AAA directory). Altogether, the construction workers would occupy no more than 9.1 percent of the 1,096 RV pads, campsites, and

identified motel rooms in Grant and Adams Counties, assuming one worker per RV pad, campsite, or room. Actual occupancy would be less than that when other motels not identified here are added to the inventory.

The Franklin County segment would have a peak of approximately 100 non-local/construction workers. The workers would be most conveniently served by RV parks in Pasco, Richland, and Kennewick (with a total of 332 pads) and three ACOE campgrounds in Burbank with 184 campsites (Woodall Publications Corp. 1996). For the Pasco/Richland/Kennewick area, the TourBook lists 20 motels with over 1,900 rooms. Assuming one construction worker per RV pad, campsite, or room, the workforce would occupy no more than 4.1 percent of the 2,416 pads, campsites, and rooms available in Franklin County (less when non-listed motels are added).

It is highly probable that visitors desiring to use transient housing would be displaced, especially on high-demand holiday weekends like the Fourth of July and Labor Day, because of:

- # limits placed on the number of reservations (RV parks and motels recommend making reservations, as do many campgrounds);
- # limited commuting range, since the maximum preferred commuting distances for workers range from 80 to 120 km (50 to 75 miles);
- # low vacancy rates during the spring through fall of the proposed construction period;
- # the prohibition of workers using USFS campgrounds;
- # the substantial proportion of the accommodations that could be occupied by the non-local/construction workforce (between approximately 4 percent and 30 percent depending on the county); and
- # limited seasonal availability at many public facilities (typically open for business only between Memorial Day and Labor Day).

These factors further reduce available camping sites and may encourage inappropriate discharge of sanitary wastes from RVs at roadside turnouts or rest areas, if workers cannot find adequate accommodations. Even under the assumption that some non-local/construction workers might have to settle for more distant locations for some time if they did not secure appropriate reservations for the peak weekends, the impact on transient accommodations would be major. OPL has not proposed measures to address these impacts; see the ~~A~~Additional Proposed Mitigation Measures@section.

**Economy and Income.** An important factor in the socioeconomic impact of the proposal would be the amount and distribution of local expenditures, which consist of workers' wages and salaries, locally procured materials (notably motor fuels and aggregates), and services (e.g., engineering, equipment leasing and repair, transportation, and security). These local expenditures, and payment of sales and use taxes on taxable goods consumed by the proposal and property taxes

on the ROW and improvements, are the principal factors generating secondary employment and income in communities along the pipeline corridor.

These factors, in turn, would generate spending in the regional economy by enterprises and individuals earning income from the proposal, which would have positive multiplier effects on local income and employment. During the construction phase (estimated to last 12 months from clearing to revegetation) there would be a buildup of positive impacts as the proposal's activities expand, followed by a contraction of activity and economic stimulus as the construction work decreases.

Table 3.16-6 presents a breakdown of the proposal's construction costs allocated among the six corridor counties on the basis of pipeline mileage and construction spread location. OPL's cost estimators have projected that approximately 10 percent of the non-labor construction materials and services to be consumed onsite would be procured from suppliers located within the pipeline corridor counties. Based on the projected costs for the project, OPL used a modified IMPLAN model of Industry No. 50 (Public Utilities Construction) was used to develop projections of the impacts of procuring locally supplied goods and services, and to generate projections of multiplier effects on employment, income, output, and local taxes in each of the pipeline counties.

The other component of the IMPLAN analysis was to account for the effects of proposal workers' local spending. Purchases of food, lodging, entertainment, and other expenses, both by locally hired and non-local construction workers, would stimulate incomes and employment of local merchants and other providers of goods and services in the corridor counties. (The socioeconomics section of the ASC describes the parameters used for the IMPLAN analysis in detail.)

Overall, the direct positive industrial output impact of construction for the pipeline corridor counties' economies is projected by the ASC to be a short-term increase of about \$21.5 million (in 1995 dollars) in total local business (i.e., gross sales). The initial direct infusion of proposal workers' spending \$8.3 million plus procurement of locally supplied construction materials and services (\$5.64 million) would recycle through the local economy, causing multiplier effects which would eventually generate another \$7.54 million in indirect and induced effects. The secondary consumption spending figures reflect the estimate (shown in Table 3.16-7) that the majority of the workers would be non-local, highly skilled craftspeople hired from outside of the proposal region. Approximately two-thirds of the incremental business gains would accrue to the trade and services sectors (including transportation and utilities and government).

For the proposal region as a whole, the output multiplier for the proposal-related local spending would be 1.58 (for every \$1.00 in local area proposal-related spending, another \$0.58 worth of business would be stimulated secondarily as a result of the recycling of the construction work spending). (OPL 1998, socioeconomics section.) The largest share of the economic increase would occur in Kittitas County, which has the most pipeline mileage, the Kittitas Terminal, and proposal expenditures for materials and labor. Kittitas County would accrue nearly one-half of the proposal's economic impacts. Adams County would experience the least effects, having only about 16.1 km (10 miles) of pipeline within its boundaries. The magnitude of the output multiplier effect would be greatest in Snohomish and King Counties, due to their greater depth and diversity of economic activity compared to the other four counties. As a result, a higher proportion of the proposal's and

**Table 3.16-6. Preliminary Cost Estimate Distribution (in dollars) by County for the Proposal**

[illegible]

**Table 3.16-7. Construction Labor Loading**

<b>Personnel</b>	<b>Spread #1</b>	<b>Spread #2</b>	<b>Spread #3</b>	<b>Total</b>
<b>Loading, by Craft</b>				
Superintendent	3	1	3	7
Assistant superintendent	0	2	0	2
Office manager	2	2	2	6
Safety coordinator	1	2	1	4
Payroll clerk	2	1	2	5
Materials manager	2	1	2	5
Foreman	20	10	20	50
Mechanic	12	10	12	34
Welder	30	12	30	72
Journeyman	6	6	6	18
Operator	112	36	112	260
Welder helper	60	24	60	144
Driver	30	12	30	72
Laborer, skilled	20	10	20	50
Laborer, unskilled	75	30	75	180
<b>Total</b>	<b>375</b>	<b>159</b>	<b>375</b>	<b>910</b>
<b>Estimated Local Hiring</b>				
Operator (25%)	28	9	28	65
Welder helper (10%)	6	2	6	14
Driver (25%)	8	3	8	18
Laborer (75%)	71	30	71	173
<b>Total Local Hires</b>	<b>113</b>	<b>44</b>	<b>113</b>	<b>270</b>
Percent Locals of Total	30.1%	27.6%	30.1%	29.6%
Source: OPL 1998.				

workers=requirements for supplies can be acquired in those two counties, and the money introduced by their expenditures would circulate longer and affect a higher ratio of businesses. (OPL 1998.)

Personal incomes (place of work impacts) of individuals, proprietors, property owners, and corporate entities would be affected positively by the construction work (OPL 1998, socioeconomics section). Personal income is one component of the value created by production of goods and services. According to the IMPLAN regional model, the \$14 million in local direct procurement and worker spending would generate about \$4.75 million in local personal income for employees and proprietors

of local businesses serving the proposal. Their spending, in turn, would stimulate another \$2.86 million in induced spending by households deriving income from proposal-related spending. The combined effect would add approximately \$7.61 million to the level of personal income in the proposal region during the construction phase.

A potential negative economic effect could be experienced by businesses supported by tourism and recreation (i.e., hotels, motels, stores). If construction workers displace tourists/recreationists in campgrounds and motels during construction, some of that income would be lost because of reduced spending by them. Construction workers' expenditures would replace some of this loss, but not all because of differing spending patterns than tourists/recreationists.

**Employment.** Jobs in the pipeline corridor counties would temporarily expand in response to the income stimulus, as businesses increase their payrolls to accommodate the rise in demand (over and above the direct construction jobs onsite) (OPL 1998, socioeconomics section). The IMPLAN model analysis projects that in addition to the 330 equivalent annualized full-time direct jobs, another 205 jobs would develop in the region as a result of the proposal's stimulus to the local economy. With over 900 workers involved during the middle 3 months of construction, local businesses would not be expected to make any long-term hiring decisions to meet the demands of the proposal; instead, workers and owners would put in overtime and businesses would hire temporary employees to handle the spike in demand.

Kittitas County would experience the largest increment of employment due to having the largest components of the proposal. The smaller proportion of working-age population in the rural eastern counties (Adams, Franklin, and Grant) suggests that jobs generated by the proposal for local residents would support relatively more dependents per worker household than in the western counties.

**Local Government Finances.** The proposal would have a positive impact on local government finances. Purchases of materials and equipment for construction would generate sales and use taxes, while the expansion of OPL's land holdings and facilities (i.e., its real and personal property) may add to local jurisdictions' assessed valuations and property taxes.

OPL estimates that sales and use taxes on the goods consumed in constructing the proposal would amount to nearly \$7.6 million. Based on current sales and use tax rates in each of the corridor counties, the counties would receive the additional sales tax revenues shown in Table 3.16-6. Property taxes would be due and payable when the state determines the assessable value of the facilities improvements. Because construction is to take 1 year, no property taxes would likely be assessed during that phase.

Construction of the proposal would generate temporary increases in economic activity in the pipeline corridor counties in the form of increased business for local businesses, expanded employment, increased personal income, and additional tax revenues. The impact of construction is therefore largely beneficial from a socioeconomic perspective, and no mitigating measures are required.

**Environmental Justice.** Federal agencies are required to adopt as part of their mission the achievement of environmental justice as dictated by Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Disproportionately high and adverse human health or environmental effects of federal agency programs, policies, and activities on minorities and low-income populations must be identified and addressed. In addition, the Order stipulates that agency programs and activities must avoid exclusion from participation, discrimination, or denying benefits to anyone because of race, color, or national origin.

Small sections of the pipeline corridor would pass through agricultural lands, some of which have hand-tended or picked crops (see Section 3.14, Agriculture). While many migrant workers tend to be of minority ancestry or of lower income levels, the small areas to be converted from labor-intensive agriculture would not substantially reduce the local employment needs of the industry. The proposal would generate some unskilled-labor jobs, with pay rates likely higher than that of the agricultural industry. The IMPLAN data do suggest that the rural and ethnically diverse eastern counties of the pipeline corridor would benefit relatively more from jobs and income generated by the proposal than would King and Snohomish Counties.

In addition, the impact to Native Americans would be negligible because the pipeline corridor does not cross the lands of the Wanapum Tribe.

### ***Operational Impacts***

**Population and Demographics.** Proposal operation would employ a small workforce (estimated at 10 new facility personnel and 6 to 10 local ROW personnel). Efforts would be made to hire local individuals as much as practicable, thus reducing the potential effect on the local population. Thus, impacts on populations along the pipeline corridor would be negligible.

**Housing.** Because operation of the proposal would only employ 16 to 20 personnel and they would be hired locally from the existing workforce, local housing would not be affected.

**Economy, Employment, and Income.** After completion of construction, operation of the proposal would generate a small but steady flow of income, employment, and taxes in the pipeline corridor counties. Proposal operation would employ approximately 16 to 20 full-time employees with efforts made to hire local individuals.

Operation of the proposal would have a major negative impact on Tidewater Barge Lines, Inc., the common carrier of OPL's petroleum products on the Columbia River. Tidewater employs approximately 300 people with more than 25 percent involved in the shipment of petroleum products. With 30 percent to 40 percent of the company's business directly connected with shipping OPL's products, the loss due to the proposal would be substantial. If shipments to Pasco were discontinued, Tidewater has indicated that they would be forced to lay off approximately 100 employees and discontinue petroleum shipments to Wilma (Clarkston). Indirectly, Tidewater's price of shipping grain would increase because costs are currently offset by the combined round-trip shipment of grain and petroleum products. (Hickey pers. comm.)

While the loss of income for Tidewater Barge Lines, Inc. would be a non-mitigable effect of the proposal, layoffs could be mitigated by OPL funding job placement and/or training for those whose jobs would be discontinued, as described in the additional mitigation section.

Property taxes would be due and payable when the state determines the assessable value of the facilities improvements. After operations commence, the facilities would be assessed and local jurisdictions would levy their taxes. The state would also impose other taxes on operations. OPL has prepared an estimate of the property taxes that would be levied on the proposal, summarized in Table 3.16-8. As shown, total annual property taxes for the new facility in the six corridor counties would amount to approximately \$310,000. About two-thirds of the taxes would be divided among the six corridor counties on the basis of pipeline distance in each, with the remaining one-third based on other facilities located in each county including the Kittitas Terminal in particular.

**Table 3.16-8. Estimated Annual Property Tax Revenues from the Proposal Listed by County**

<b>Location</b>	<b>Revenues</b>
Snohomish County	\$24,512
King County	56,062
Kittitas County	164,044
Grant County	26,293
Adams County	8,315
Franklin County	<u>31,058</u>
<b>Total</b>	<b>\$310,284</b>
<hr/> Source: OPL estimate.	

**Environmental Justice.** Operation of the proposal would have little effect on minority or lower income populations. Attempts would be made to hire from the local populations, but the operational workforce would be extremely small.

A product spill along the pipeline could affect plant gathering, fisheries, and wildlife that Native Americans have historically relied upon as part of their subsistence living and for tribal ceremonies. Such a spill could result in diminished quantities available or contaminated fish and wildlife that could not be consumed. As a result, tribal members may have to conduct plant gathering, fishing, and hunting activities at a location other than at any traditional sites along the pipeline until the spill was cleaned up and it was again safe to consume local resources.

**Columbia River Approach and Crossing Options.** None of the alternative alignments or alternative river crossings would have significant impacts.

**Cumulative Impacts.** The proposal would not significantly contribute to cumulative effects from a socioeconomic perspective, primarily because of the minor to negligible level of anticipated direct and indirect impacts. The major impact of non-local construction workers on



transient housing conditions would have a cumulative impact in association with similar construction projects in the vicinity of the proposal only if the recommended mitigation measures are not followed. The only significant project along the pipeline corridor planned in an undeveloped area is the planned resort complex near Roslyn. Timing of eventual construction is uncertain on both projects. It is not known at this time whether construction periods would overlap. In addition, the current robust economy in the Portland, Oregon and Vancouver, Washington vicinity would buffer the employment loss at Tidewater Barge Lines, Inc. should the proposal be built.

### **3.16.2.2 No Action**

Under the No Action Alternative, the proposal would not be constructed. Petroleum products would continue to be transported between western and eastern Washington by tanker truck on interstate highways and by barges on the Columbia River. The number of trips per day by each means of transport would increase over time, thus stimulating a slight increase in employment and income in the trucking and barge industries and preserving the portions of those industries that rely on shipment of petroleum products.

As identified in the **AAffected Environment**, five tribes reside on relatively isolated Indian reservations located along the Pacific Ocean coast in western Washington. Under the No Action Alternative, increased ocean barging of petroleum products to meet the transportation demand would somewhat increase the likelihood of an accidental spill. Movement of petroleum products into coastal areas and on shore could affect fish and shellfish production. Even if such a spill did not lead to reduced quantities of fish and shellfish, it could contaminate them so that they could not be consumed. Also, reproductive levels of fisheries could be reduced to the point that longer-term production and quantities could be affected.

Tribal members rely upon these fisheries and shellfish more than other people because it is an integral and valued part of their cultural history. It is also a supplement to their subsistence living, resulting from the greater levels of unemployment and lower income levels they experience. Because it makes up a noticeable portion of their subsistence living, temporary removal would affect the availability of food and the quality of the diet for a number of tribal members. Such a loss might increase the need for food subsidies to some tribal members. Long-term impacts resulting from a spill could have serious effects on subsistence levels and the need for assistance. It could also affect the tribes' ability to conduct tribal ceremonies in which fish and shellfish play an integral part.

The No Action Alternative would not allow each county to experience the positive impacts of the proposal including employment, income, and tax revenues. In particular, Kittitas County would lose the opportunity for major ongoing revenues from the Kittitas Terminals operation.

## **3.16.3 Additional Proposed Mitigation Measures**

### **3.16.3.1 Construction Mitigation and Subsequent Impacts**

The socioeconomic effects of the proposal would be predominately beneficial, in the form of temporary increases in jobs, personal income, and sales taxes during the construction phase. On any large project, the winding down of construction work can have a depressive effect upon some community economies which have built up business activity in support of the project, but it is unlikely in this case, because of the short construction period and mobile work sites. The magnitude of each spread-s work relative to the scope and depth of economic activity in the surrounding areas is unlikely to be large enough to be destabilizing.

As previously stated, OPL has not proposed mitigation measures to address transient housing impacts. However, to mitigate the potential major impact of non-local/construction workers on local transient accommodations, the following alternative temporary accommodations are recommended:

- # negotiating with private RV and campground owners to expand their facilities for exclusive use by the proposal workers at OPL's expense,
- # renting or arranging for use of local dormitories during off-season periods (e.g., Central Washington University's student housing during the summer, non-school-year months),
- # renting or arranging for use of local housing, and/or
- # establishing a sewage tank and pumping system to be used by construction workers to avoid inappropriate dumping.

In addition, it is recommended that OPL develop a Transient Worker Housing Plan that includes:

- # the number of housing units or RV pads actually available that non-local construction workers could use without displacing existing users, taking into account seasonal variations in vacancy rates,
- # identification of other housing options (see above), quality of housing, cost of housing, proximity to work locations, availability of services, etc.,
- # plans, if needed, to fund any of the above listed housing options,
- # review and approval by the USFS and EFSEC to ensure workforce housing needs can be met, and
- # plans for monitoring the non-local construction workforce by OPL during the construction period, and providing immediate action if needed, to ensure that illegal camping or inappropriate discharges of sanitary wastes do not occur.

If the above studies and mitigation measures are successfully implemented and housing needs are substantially met, impacts to housing would be minor to negligible.

### **3.16.3.2 Operational Mitigation and Subsequent Impacts**

The socioeconomic effects of operation would be predominately beneficial, in the form of slight increases in employment, income, and taxes along the pipeline corridor.

The income effects on Tidewater Barge Lines, Inc. would be a non-mitigable impact, but those employees who lost their jobs could be assisted through OPL-funded job placement and/or training.

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